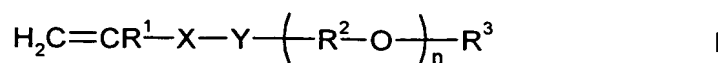


We claim:

1. A water-soluble copolymer which comprises, in copolymerized form,

- 5 (a) 60 to 99% by weight of at least one monoethylenically unsaturated polyalkylene oxide monomer of the formula I



10 in which the variables have the following meanings:

- X is -CH₂- or -C(O)-, if Y is -O-;
 is -C(O)-, if Y is -NH-;
 is -O- or -O-(CH₂)₄-, if Y is a chemical bond;
- 15 Y is -O-, -NH- or a chemical bond;
 R¹ is hydrogen or methyl;
 R² is C₂-C₄-alkylene radicals, which may be identical or different and also linear or branched, but where at least 50% of the radicals R² are ethylene;
- 20 R³ is C₁-C₂₂-alkyl, phenyl, p-(C₁-C₁₂-alkyl)phenyl or hydrogen;
 n is an integer from 6 to 50,
- (b) 1 to 40% by weight of at least one nonquaternized dipolar monomer comprising at least one nitrogen atom,
- 25 (c) 0 to 39% by weight of other nonionic monoethylenically unsaturated monomers and
- (d) 0 to 10% by weight of other anionic monoethylenically unsaturated monomers
- 30

and has an average molecular weight M_w of from 2000 to 500 000 D.

35 2. The copolymer according to claim 1, which comprises, in copolymerized form, as monomer (a), at least one monomer of the formula (I) in which the variables have the following meanings:

- X is -C(O)-;
 Y is -O- or -NH-;
 40 R¹ is hydrogen or methyl;
 R² is ethylene;

R^3 is methyl or hydrogen;
 n is an integer from 15 to 25.

- 5 3. The copolymer according to claim 1 or 2, which comprises, in copolymerized form, as monomer (b), at least one monomer chosen from the group of N-vinylpyrrolidones, N-vinylimidazoles, N-vinylcaprolactams, vinylpyridines, N-vinylformamides, N-vinylacetamides, basic (meth)acrylic esters and (meth)acrylamides.
- 10 4. The copolymer according to any of claims 1 to 3, which comprises, in copolymerized form, as monomer (b), at least one monomer chosen from the group of N-vinylpyrrolidones and N-vinylimidazoles.
- 15 5. The copolymer according to any of claims 1 to 4, which comprises, in copolymerized form, 90 to 95% by weight of monomer (a), 5 to 15% by weight of monomer (b), 0 to 15% by weight of monomer (c) and 0 to 2.5% by weight of monomer (d).
- 20 6. The copolymer according to any of claims 1 to 5, which has an average molecular weight M_w of from 4000 to 60 000 D.
7. The use of copolymers according to any of claims 1 to 6 as dispersants and sequestrants for pigmented materials.
- 25 8. The use according to claim 7, wherein the pigmented materials are pigment-containing soiling.
9. The use of copolymers according to any of claims 1 to 6 as additive for detergents, laundry pretreatment agents, cleaning compositions for hard surfaces, dentifrices and bodycare compositions.
- 30 10. The use of copolymers according to any of claims 1 to 6 as auxiliaries for textile processing, paper making and paper processing and deinking processes.
- 35 11. A detergent formulation which comprises copolymers according to any of claims 1 to 6 as additive.
- 40 12. A liquid detergent formulation comprising

- (A) 0.05 to 20% by weight of at least one copolymer according to any of claims 1 to 6,
- 5 (B) 0.5 to 40% by weight of at least one nonionic, anionic and/or cationic surfactant,
- (C) 0 to 20% by weight of an inorganic builder,
- 10 (D) 0 to 10% by weight of an organic cobuilder,
- (E) 0 to 60% by weight of other customary ingredients, such as sodium carbonate, enzymes, perfumes, complexing agents, corrosion inhibitors, bleaches, bleach activators, bleach catalysts, color transfer inhibitors, graying inhibitors, soil release polyesters, fiber and color protection additives, silicones, dyes, bactericides, organic solvents, solubility promoters, hydrotropes, thickeners and/or alkanolamines and
- 15 (F) 0 to 99.45% by weight of water.
- 20 13. A solid detergent formulation comprising
- (A) 0.05 to 10% by weight of at least copolymer according to any of claims 1 to 6,
- 25 (B) 0.5 to 40% by weight of at least one nonionic, anionic and/or cationic surfactant,
- (C) 0.5 to 50% by weight of an inorganic builder,
- 30 (D) 0 to 10% by weight of an organic cobuilder and
- (E) 0 to 60% by weight of other customary ingredients, such as extenders, enzymes, perfume, complexing agents, corrosion inhibitors, bleaches, bleach activators, bleach catalysts, color transfer inhibitors, graying inhibitors, soil release polyesters, fiber and color protection additives, silicones, dyes, bactericides, dissolution improvers and/or disintegrants,
- 35
- where the sum of components (A) to (E) is 100% by weight.